Sanitized Copy Approved for Release 2011/08/25 : CIA-RDP80-00809A000600400233-8

CLASSIFICATION CONFIDENTIAL ~~CONFIDENTIAL~~

CENTRAL INTELLIGENCE AGENCY

INFORMATION FROM FOREIGN DOCUMENTS OR RADIO BROADCASTS

REPORT

CD NO.

50X1-HUM

COUNTRY Poland

SUBJECT Economic - Electrical industry; organization and planning

HOW PUBLISHED Monthly periodical

WHERE PUBLISHED Warsaw

DATE PUBLISHED 21 Feb 1948

LANGUAGE Polish

DATE OF INFORMATION 1948

DATE DIST. // Jul 1951

NO. OF PAGES 6

SUPPLEMENT TO REPORT NO.

THIS DOCUMENT CONTAINS INFORMATION AFFECTING THE NATIONAL DEFENSE OF THE UNITED STATES WITHIN THE MEANING OF ESPIONAGE ACT 50 U. S. C., 31 AND 32, AS AMENDED. ITS TRANSMISSION OR THE REVELATION OF ITS CONTENTS IN ANY MANNER TO AN UNAUTHORIZED PERSON IS PROHIBITED BY LAW. REPRODUCTION OF THIS FORM IS PROHIBITED.

THIS IS UNEVALUATED INFORMATION

SOURCE Przeglad Elektrotechniczy, Vol XXIV, No. 2, 1948.

1948 PLANS FOR DEVELOPMENT OF POLISH ELECTRICAL INDUSTRY

In 1939, the Polish electrical industry consisted of 220 enterprises with a total of 32,000 workers. The annual production was valued at 270 million zlotys. The prewar investment capital of the electrical industry is estimated at 160 million zlotys, hence, the ratio of production to investment was 1.68:1. The investment per worker was 5,000 zlotys, and annual production per worker was valued at 8,450 zlotys.

In 1945, 40 enterprises were activated with an investment capital of 90 million zlotys, but, because of war damage, this capital did not yield its full production possibilities. The value of production amounted to 16,500,000 zlotys, and the number of workers increased from 5,000 to 8,100 in the second half of 1948.

In 1947, 68 enterprises with an average employment of 19,000 had an investment capital of 110 million zlotys and a production valued at 167 million prewar zlotys. The ratio of production to investment was 1.5:1, and the value of production per worker was 8,750 zlotys. The increase in 1947 production over 1946 production amounted to 104 percent, with an increase in employment of 60 percent.

It is expected that in 1948, the production value will amount to 250 million zlotys, the average employment will be 27,000 workers, and the value of investment capital will reach 130 million zlotys. This means that production will increase by 50 percent and employment will increase by 42 percent over 1947. The ratio of production to investment will be 1.92:1, the annual production per worker will be 9,250 zlotys, and the investment per worker will be 4,800 zlotys.

In 1955, the annual production of state, cooperative, and private industry will be 700 million zlotys. The state industrial production will be 650 million zlotys. The number of workers employed will be 53,000.

The investment capital in state industry should reach 250 million zlotys in 1955, and it is anticipated that the ratio of production to investment will be 2.6:1, the value of annual production per worker will be over 12,000 zlotys, and the investment capital per worker will be 4,700 zlotys.

CONFIDENTIAL

CLASSIFICATION CONFIDENTIAL

STATE	X	NAVY	X	NSRB		DISTRIBUTION						
ARMY	X	AIR	X	FBI								

Sanitized Copy Approved for Release 2011/08/25 : CIA-RDP80-00809A000600400233-8

Sanitized Copy Approved for Release 2011/08/25 : CIA-RDP80-00809A000600400233-8

50X1-HUM

By 1955, the yearly production and consumption of electric power in Poland will increase to 600 kilowatt-hours per capita. This is a conservative estimate, since the Central Power Administration expects per-capita consumption of over 700 kilowatt-hours in 1955. It is anticipated that the telephone network will be expanded and the number of telephones will increase to 30 per 1,000 residents. In Poland there are now five telephones per 1,000 residents. Before the war, Germany had 50 per 1,000 residents and Sweden 100. The number of radio sets will increase from the present 500,000 to 2,500,000. Another reason for figuring on increased production is the fact that exports will amount to 10 percent of the production value.

During the German occupation, electrical engineers, some of whom are now located in Poland, worked out a plan for the development of the Polish electrical industry. At that time, the results of this work were sent illegally to London to the British Division of SEP (Association of Polish Electrical Engineers), where they appeared in a work entitled "Guiding Principles for the Reconstruction of the Polish Electrical Industry in the First Ten Years After the War." According to these principles, annual production was anticipated at 750 million zlotys with an investment capital of 382 million zlotys, which means that the ratio of annual production to investment would be 1.9:1. The number to be employed was shown as 59,000, resulting in an annual output per worker of 12,500 zlotys, and the investment per worker fluctuating between 4,000 and 12,000 zlotys (depending on the article produced) or an average per worker of 6,400 zlotys.

It is difficult to compare the figures of that time with today's plan. The basic difference is in the figures showing investment required in the electrical industry.

The earlier plan was based on the assumption of single-shift operation with only partial double-shift production in the manufacture of radio tubes, light bulbs, storage batteries, primary cells, cables, conductors, and insulating materials. The choice of single-shift operation was based on the expectation of relatively high foreign investment, namely, 16 billion zlotys for the entire Polish economy during the first 6 years after the war.

Poland's actual reconstruction is based on the use of a part of the current national income for investments; hence, it must be carried out with considerably smaller means than the earlier plan envisaged. This necessitates multiple-shift operation, reduction of the amount of investment per worker, and the highest possible ratio of production to investment.

By 1949, the effect of the modernization of Cieszyn by the construction of a new factory, of the expansion of the transformer factory in Mikolow, and of the investments to be completed in 1948 in Zychlin and in "Elektrobudowa" in Lodz, will be felt in electrical machinery production. The automotive electric-parts in Swiebodzice, which is to produce generators and starters, and which is now in the process of construction, will also contribute to the nation's production.

Beginning with 1950, machine production will be notably increased through the activation of a factory manufacturing large electrical machines in Wroclaw.

There are continued shortages of apparatus, particularly high-voltage apparatus and automatic low-voltage apparatus, despite expansion in the production of oil circuit breakers and electric meters.

Radio production will still be inadequate for 1948 despite the increase from 6,000 radio sets in 1947 to 30,000 in 1948, but steady expansion will be possible with the radio-tube factory now operating, on the basis of a recently concluded license agreement.

Sanitized Copy Approved for Release 2011/08/25 : CIA-RDP80-00809A000600400233-8

Sanitized Copy Approved for Release 2011/08/25 : CIA-RDP80-00809A000600400233-8

50X1-HUM

The production of cables and conductors, surpassing prewar production, was made possible, in view of the relatively small destruction in this branch of the electrical industry, through the introduction of multiple-shift operations. This will permit Poland to start exporting in 1948.

The large production of storage batteries and primary cells, surpassing prewar production, results from the great demand of the automotive industry and of the railroad-equipment industry, whose production of freight cars is above the prewar level.

It is expected that the 1948 electric-bulb production will surpass prewar production and will be sufficient to make up the shortages of previous years.

In 1948, state industry will receive more than half of Poland's electrical production, broken down as follows: power 20 percent, coal industry 11, metallurgical industry 5, textile industry 2, railroads 9, telecommunications 7.5, automotive industry 5, and others 2.5 percent. Sixty percent of the electrical industry's production consists of producers' goods. Only 14 percent of the total production, including the radios, will go to final consumers.

To increase the present level of production to that planned in 1955, it is necessary to activate new factories to absorb part of the 30,000 new workers in the industry. The present factories alone will not be able to increase production from 250 million zlotys worth to 700 million zlotys. The new factories to be activated are as follows:

1. Fabryka Wielkich Maszyn Elektrycznych (Factory for Large Electrical Machinery), Wroclaw, now under construction, will begin production in 1949, and will be in full operation in 1950-51.

2. A large factory is to be established for the mass production of standard electric motors, 2-10 kilowatt capacity, to be used mainly in the electrification of villages and in manual trades. This factory, in conjunction with a vocational school, is to be located in an undeveloped area on the right bank of the Wisla River.

3. Fabryka Aparatow Elektrycznych Wysokiego Napiecia (High-Voltage Electric Apparatus Factory) is to be patterned on the Warsaw factory, which will not be able to meet the electrification program of the country, since part of the Warsaw factory's production is electrical medical equipment, particularly x-ray apparatus.

4. A new low-voltage electrical apparatus factory, probable location in Pomorze, is to supplement the present Lodz factory.

5. A rectifier factory is to supply transportation-equipment industries.

6. A new copper rolling mill and cable factory using Dolny Slask copper and imported raw materials will produce for domestic needs and for export. The rolling mill and factory will be located in the Oder River area.

7. A new electric-light-equipment factory in Warsaw will produce not only ordinary light bulbs, but also various modern lighting equipment, especially fluorescent. The Warsaw L3 Light-Bulb Factory, part of the new complex, is to be activated in 1948.

8. A Warsaw center for telecommunications equipment, a dial-telephone exchange, and amplifier factories are now under construction in Warsaw.

9. A Warsaw center will produce radio loud-speakers and radiocommunication apparatus.

Sanitized Copy Approved for Release 2011/08/25 : CIA-RDP80-00809A000600400233-8

Sanitized Copy Approved for Release 2011/08/25 : CIA-RDP80-00809A000600400233-8

CONFIDENTIAL

50X1-HUM

Besides license agreements already concluded for technical cooperation on signal equipment and railroad block systems, and for the production of light bulbs, radio tubes, and dial-telephone exchanges, the electrical industry expects to conclude further agreements to facilitate the production of turbogenerators, high-voltage circuit breakers, high-voltage cables, reversing switches for overloaded transformers, rectifiers, ferronickel storage batteries, and condensers for correcting the coefficient of power.

The electrical industry must apply the research of the State Electrotechnical Institute on insulation materials such as ceramics, spun glass, and silicones. It must cooperate with the Electrotechnical and Metallurgical Institutes on the problem of magnetic materials. It must work with the Electrotechnical Institute and with large industrial consumers on the problem of efficient lighting.

Manpower

According to the above-mentioned London document, it was expected that the number of industrial workers in the tenth year after the war would reach 59,000, distributed among the following categories: engineers, 2 percent, or 1,200; technicians, 6 percent, or 3,600; skilled artisans, 25 percent, or 15,000; trained workers, 45 percent, or 27,000; and unskilled laborers, 10 percent, or 6,000. The remainder were to be administrative employees.

The electrical industry now estimates that it will have 53,000 workers in 1955. The distribution according to skill has not been worked out, but it is likely that the majority will be partially trained. Many will receive specialized training to enable them to perform specific tasks.

Organization

At the top of the electrical industry is the Central Administration, which, like 16 other administrations, is a legal entity. Under its jurisdiction are seven associations, two central offices, and one independent enterprise.

The seven associations cover production in the following fields: machinery, apparatus, cables, storage batteries and primary cells, electric light bulbs, telecommunications equipment, and radios. These associations are legal entities. They manage, coordinate, and audit the plants under them, each of which possesses the status of a legal person.

The associations do not have title to the assets of the plants under them. Any assigned assets belong to the plants. The Central Marketing Office and the Central Office of Procurement both operate on the principle of monopoly. Factories of the electrical industry sell their products exclusively to the central offices. Products which are to undergo further processing in other enterprises of the industry's Central Administration are sold to the Central Office of Procurement; all other products are sold to the Central Marketing Office.

The independent enterprises, which are directly under the Central Administration, may include one or more plants. At present, a decree is pending which will give legal status to the Factory for Large Electrical Machines, now being organized and built.

The basic difference between the administrative association and the multifactory independent enterprise is the different approach to bookkeeping. The administrative association prepares only collated statements for statistical purposes, while the multifactory independent enterprise maintains a uniform bookkeeping system with a detailed balance sheet, and not a collated balance sheet, on the entire operations of the enterprise.

CONFIDENTIAL

Sanitized Copy Approved for Release 2011/08/25 : CIA-RDP80-00809A000600400233-8

Sanitized Copy Approved for Release 2011/08/25 : CIA-RDP80-00809A000600400233-8

50X1-HUM

The enterprise engages in actual operations, unlike the administrative association. In the future, this principle may be tried in plants especially suited to this type of operation because of the uniformity of their production, such as electric-bulb production, or because of geographical proximity, as for example, the electrical precision equipment factories in Dolny Slask.

It is anticipated that, in coming years, the structure of the electrical industry will change; the associations will disappear and part of the associations' functions will be assumed by the Central Administration, and part by the single or multifactory enterprises. There will then be about 20 producing enterprises under the Central Administration. The distribution will be decided after discussions with directors of associations and plants, and after comparison of the results obtained by other industries.

It is expected that the Central Administration will have five divisions to handle problems in the economic, production, technical, labor, and administrative and financial fields.

The economic division will handle long-range planning based on analyses of the national economy; it will coordinate production, supply, and employment plans with the financial and economic plans. It will also handle exports, imports, international cooperation, and statistics of the electrical industry. The economic division will not only coordinate plans within state industry but will also recommend cooperation with the cooperative and private sectors. This cooperation involves the coordination of production plans with supply requirements.

The production division will prepare production plans for the subordinate enterprises and will coordinate technological plans with production plans. The production division is responsible for the fulfillment of the plan and for the economical use of the means of production. It sets up quality-control techniques, and is responsible for both the volume and quality of production.

The technical division has jurisdiction over engineering design, research, and laboratories. This division approves new models for production and works out standardization of products. Problems pertaining to technological improvements and investments are handled by the technical division. The technical division prepares plans for industrial investments and expansion in accord with long-range guides prepared by the economic division.

The labor division handles problems of manpower, wages, social programs, and vocational training.

Prime costs (raw materials consumed and unit labor) come under the production division. The complete financial operation (norms on the use of working capital, cost accounting, interperiod trial balances, and the preparation and analysis of collated balance sheets for the entire industry) is handled by the administrative and financial division. In cooperation with the Polish National Bank, which beginning in 1948 will take over the financing of industry, the administrative and financial division will be responsible for the profits and gross income of the entire industry within the limits set by the plan.

It is likely that sections will be created within the production divisions of the management to handle production and technical problems of enterprises in the same field of production and with similar technological processes, particularly branch sections handling the special problems of a given branch of production.

Sanitized Copy Approved for Release 2011/08/25 : CIA-RDP80-00809A000600400233-8

Sanitized Copy Approved for Release 2011/08/25 : CIA-RDP80-00809A000600400233-8

50X1-HUM

Much criticism has been leveled at the cumbersome and costly administrative apparatus of industry. Much work is duplicated without contributing to the final solution of the problems. Within the present three-echelon structure of industry, individual responsibility is not clearly defined. To give best results, workers and managers alike must be responsible for specific jobs.

The most pressing problem to be solved during 1948 is the problem of quality. Quality-control techniques must be set up for all stages of production. The resolution of the main administration of SEP (Society of Polish Electricians) designating Smoluchowski, technical director in the Central Administration, as chairman of the Central Commission for Electrical Standards, shows that the SEP appreciates the meaning of cooperation on standards, specifications, and indexes for the electrical industry

The second problem is the systematic reduction of production costs, mainly by the introduction of large-series production through plant specialization and standardization of models The administrative and financial division is prepared to analyze cost-accounting problems and is training experts for this work.

Another problem is that of international cooperation. The Polish-Czech Electrical Committee has already begun operating in accord with the agreement on international economic cooperation. The statute of organization has been set up, and duties for subcommittees according to industrial branches have already been assigned. There must be mutual understanding of the potentials of the industries of both countries Work has already been started on uniform terminology and uniform classification for statistical and planning purposes. There will be an exchange of experts between the countries to work on standardization.

Discussions have been begun concerning plants of both nations working for a common market, and on general principles to be followed by both parties in concluding agreements. Subsequent cooperation agreements between Poland and other Slavic nations will help increase Poland's production potential, satisfy its supply requirement, and provide technical cooperation without many of the unfavorable features of license agreements concluded between foreign nations.

- E N D -

Sanitized Copy Approved for Release 2011/08/25 : CIA-RDP80-00809A000600400233-8